

REMARKS

This is a full and timely response to the non-final Official Action mailed March 10, 2004. Reconsideration of the application in light of the above amendment and the following remarks is respectfully requested. Claims 1-10 are pending in this application, and claims 1-10 have been rejected. Claim 5 has also been objected to. Claim 5 has been amended to overcome the objection. Claim 11 has been added to better define the invention in light of the specification. Support for the amendments and new claim can be found in the specification, paragraphs 18–20. The specification has also been amended to correct spelling errors and typos. No new matter is introduced by the amendments.

Rejection – 35 U.S.C. § 103

The Office has rejected claims 1-10 under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art (APA) or EP '017 in view of Yang et al. and Hawtof et al. In particular, the Office rejected the claims because “it would have been obvious to one of ordinary skill in the art to construct or provide the buffer tubes of the APA or EP '017 out of an alloy of polypropylene and polyphenylene oxide in view of the teachings of Yang et al. and Hawtof et al.” Office Action, pages 2-3, paragraph 2. The Office asserts that Yang et al. provides the suggestion or motivation to combine the references, which is to “us[e] an alloy of different polymers as materials for buffer tube construction to provide better mechanical and electrical properties.” Office Action, page 3, paragraph 2. Applicant respectfully traverses the rejections.

When rejecting a claim as obvious under §103(a), “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” M.P.E.P. § 2141.02.

Yang et al. as a whole relates to a polypropylene-polyethylene copolymer (PP-PE) buffer tube for an optical fiber cable. (col. 1, lines 9-12). PBT, polycarbonate, a polyamide or a layered combination of these is preferred over PP-PE because “the disadvantages of greater shrinkage and lower compression-tension resistance of [PP-PE] have outweighed the material handling and cost advantages offered by [PP-PE].” (col. 2, lines 5-9). Yang et al. overcomes the shrinkage and compression-tension problems of PP-PE by incorporating a nucleating agent or filler material in the PP-PE copolymer. (col. 2, lines 23-35). Thus, when considered as a whole, Yang et al. is directed to including a nucleating agent or filler material in a PP-PE copolymer to make it useful as a buffer tube material.

Hawtof et al., on the other hand, is not directed to buffer tube materials, but is directed to a means of identifying optical fibers by coating individual optical fibers with a coating that “includes material forming a data storage medium which is capable of digitally encoding information.” (col. 1, line 43 – col. 2, line 8). According to this invention, the data storage medium is coated around the fiber core and clad. (col 11, lines 4-16). Suitable coating materials for the magnetic data storage medium include, among others, thermoplastics, such as polyphenylene oxide. (col. 5, line 66 – col. 6, lines 1-4, 39-45). The data storage medium may then be encoded with information such as the product type and production lot, attenuation properties, polarization mode dispersion, etc. (col. 2, lines 40-59). Thus, when considered as a whole, Hawtof et al. is directed to a method of identifying optical fibers by coating the optical fibers with a data storage medium and encoding data into the data storage medium along the length of the fiber.

Considering Yang et al. and Hawtof et al. in their entirety, the Office has not shown that either reference provides a suggestion or motivation to combine the references, and thus has not established a *prima facie* case of obviousness. *See* M.P.E.P. § 2143. In particular, the Office has not shown that Yang et al. suggests combining the polyphenylene oxide fiber data

storage medium coating of Hawtof et al. with the PP-PE buffer tube material of Yang et al. to be used in the buffer tubes of the APA or EP '017. Nothing in Yang et al. or Hawtof et al. suggests that a polyphenylene oxide fiber coating may be used in buffer tube material, or in combination with polypropylene. Rather, Hawtof et al. teaches that polyphenylene oxide is a suitable material to be used as the magnetic data storage medium coating directly surrounding an optical fiber core and clad. Since the Office has not properly established a prima facie case of obviousness, Applicant respectfully requests withdrawal of this ground of rejection.

Finally, the Office has rejected claim 5 because “the values or ranges of flexural modulus are deemed obvious design choice through routine experimentation.” *See* Office Action, page 3, paragraph 2. Rejecting a claim as an “obvious design choice” first requires a prior art reference to teach “the general conditions of [the] claim.” *See* M.P.E.P. § 2144.05 (quoting *In re Aller*, 105 USPQ 233, 235 (CCPA 1955)). There must then be a “teaching or suggestion in the prior art that would lead one of ordinary skill in the art to modify” the prior art reference with the alleged “design choice.” *See In re Chu*, 36 USPQ2d 1089, 1095 (1995) (holding that placement of the catalyst in the bag retainer “would not have been merely a matter of ‘design choice’ [since] there was no teaching or suggestion in the prior art that would lead one of ordinary skill in the art to modify the Szymanski structure to place the . . . catalyst within [the] bag retainer”); *see also In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down.).


The Office, however, has not provided sufficient reasoning to substantiate the assertion of obvious design choice. In particular, the Office has not cited any motivation, suggestion or reference in support of the assertion that a “buffer tube comprised of a polymeric material having a flexural modulus greater than about 180 kpsi at room

temperature and having a flexural modulus less than about 370 kpsi at room temperature” is an obvious design choice. *See* claim 1. The Office thus has not established a prima facie case of obviousness. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

CONCLUSION

Since none of the references, alone or in combination, disclose or make obvious the invention as now claimed, Applicant respectfully requests the Office to withdraw the pending grounds of rejection and allow the pending claims. If there is any fee due in connection with the filing of this Request for Reconsideration, including a fee for any extension of time not accounted for above, please charge the fee to our Deposit Account No. 18-0013/64671.0480.

Respectfully Submitted,

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